

We claim:

1. A method of assembling in a predetermined alignment the load beam and flexible circuit components of a disk drive suspension having proximate and distal ends, including juxtaposing at a common contact plane a suspension load beam and a flexible circuit comprising a laminate of trace conductors, and an insulative film, and intersecting first plural locator structures on said load beam with second plural locator structures on said flexible circuit across said common contact plane to locate said load beam and flexible circuit in said predetermined alignment.

2. The assembly method according to claim 1, including also extending said first plural locator structures through said common plane, and receiving said first plural locator structures with said second plural locator structures respectively.

3. The assembly method according to claim 1, including also fixing said flexible circuit to said load beam in locations spaced from said first and second plural locator structures.

4. The assembly method according to claim 1, including also locating said first plural locator structures at said suspension distal end.

5. The assembly method according to claim 1, including also locating said second plural locator structures at said suspension proximate end.

6. The assembly method according to claim 5, including also locating  
5 said first plural locator structures at said suspension distal end.

7. The assembly method according to claim 6, including also forming in said load beam longitudinally spaced and axially aligned raised sections raised out of the general plane of said load beam to define locator structures.

8. The assembly method according to claim 7, including also orienting said raised load beam sections normal to the longitudinal axis of said load beam.

9. The assembly method according to claim 6, including also providing  
15 a metal layer in said flexible circuit laminate, and forming raised section-receiving recesses in said flexible circuit metal layer to form said second plural locator structures.

10. The assembly method according to claim 1, including also  
20 intersecting third plural locator structures on said load beam and flexible circuit respectively across said common contact plane simultaneously with intersecting of said first and second plural locator structures, said third plural locator

structures being laterally offset from the longitudinal axes of said load beam and flexible circuit.

11. The assembly method according to claim 1, including also providing  
5 a metal layer on said flexible circuit laminate, and attaching said first and second plural metal layer to said load beam in locations spaced from said locator structures.

12. A disk drive suspension having proximate and distal ends and  
10 comprising a load beam and a flexible circuit laminate of trace conductors and an insulative film, said load beam and flexible circuit being attached together on either side of a common plane, and plural pairs of interfitting locator structures aligning said load beam and flexible circuit laminate.

13. A disk drive suspension having proximate and distal ends and  
15 comprising a load beam and a flexible circuit laminate of trace conductors and an insulative film, said load beam and flexible circuit being fixed together on either side of a common plane, plural pairs of interfitting locator structures including a first distal pair of locator structures, a second proximate pair locator structures,  
20 and a third proximate pair of locator structures, said first and second pairs being located on the longitudinal axes of said load beam and flexible circuit, said third pair being located laterally offset from said longitudinal axes and between said

first and second pairs at the proximate end of said suspension, said pair members being interfitting in common plane intersecting relation.

14. The disk drive suspension according to claim 13, in which each pair  
5 of locator structures includes a raised metal section, said flexible circuit laminate includes metal portions, said metal portions defining recessed metal sections opposed to said raised metal sections across said common plane.

15. The disk drive suspension according to claim 14, in which said  
10 raised metal sections are each formed in said load beam as a load beam section raised out of the general plane of said load beam.

16. The disk drive suspension according to claim 15 in which said  
15 recessed metal sections are each formed in said laminate to receive said raised metal sections.

17. The disk drive suspension according to claim 16, in which said  
20 raised metal sections are each formed in said load beam as a load beam section spaced from the general plane of said load beam.

18. The disk drive suspension according to claim 17, in which flexible circuit laminate includes a metal layer, said recessed metal sections including a recess extending through said metal layer.

19. A disk drive suspension comprising load beam and flexible circuit components that are juxtaposed and properly located relative to each other before welding by a series of areally distributed locator structures that intersect
- 5 across the common plane between the components in aligning relation.

104441-10301